

1301/313
1304/313
1305/313
SITE AND WORKSHOP MANAGEMENT
June/July 2018
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
CRAFT CERTIFICATE IN CARPENTRY AND JOINERY
CRAFT CERTIFICATE IN MASONRY
CRAFT CERTIFICATE IN PLUMBING
SITE AND WORKSHOP MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Drawing instruments

Answer FIVE of the following EIGHT questions.

All questions carry equal marks.

Maximum marks for each part of a question are as indicated.

Candidates should answer the questions in English.

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. (a) State **six** factors to consider when selecting a workshop site. *Service → Local Authority (6 marks)*
 (b) State **three** roles of each of the following parties to a contract: *→ Mens of Trade Part → Resources available → market*
 (i) suppliers;
 (ii) local authority. (6 marks)

(c) Explain **four** spaces to be allocated in design of a workshop. *Storage, Wash, Painting, Office* (8 marks)

2. (a) Explain **four** contract documents. *Specification, drawings, Bill of Materials* (8 marks)

(b) Explain **three** ways of motivating workers in an organization. (6 marks)

(c) Define each of the following terms used in procurement:

- (i) quotation;
 (ii) specification;
 (iii) requisition; *- Used on site to order - Study name for - order sheet*
 (iv) invoice. *- Shows price of material delivered.* (6 marks)

3. (a) State **three** advantages of each of the following stores:

- (i) centralized; —
 (ii) decentralized. (6 marks)

(b) Explain **three** reasons for hoarding commodities in a site store. (6 marks)

(c) Explain each of the following as used in store keeping:

- (i) stock;
 (ii) re-order level;
 (iii) stock review. (6 marks)

(d) State **four** methods of tendering. (2 marks)

Drawings - Drawings are done by the architect

Specifications - Precise description of the standard of material and workmanship with the architect required for the work.

Bill of Materials - Complete description of quantity, labour and material required to produce the work prepared by the architect and specifications.

4. (a) State **four** roles of trade unions. (4 marks)
- (b) **Table 1** shows activities and duration of a construction project.
- (i) Prepare a network diagram showing the critical path.
- (ii) Determine the earliest and latest finish time. (10 marks)

Table 1

Activity	Duration
1 - 2	5
1 - 3	10
2 - 4	0
2 - 7	10
3 - 5	5
3 - 6	4
4 - 7	5
5 - 7	8
6 - 7	9

- (c) Explain how each of the following is used in estimating quantity of materials during a construction period:
- (i) taking off;
- (ii) squaring;
- (iii) abstracting. (6 marks)
5. (a) Outline **four** safety rules to be observed in a workshop. (6 marks)
- (b) Explain **four** factors that influence a workshop layout. (8 marks)
- (c) State **six** functions of a site layout. (6 marks)
6. (a) (i) Explain the **three** types of maintenance of construction plants.
- (ii) State **two** advantages of each type of maintenance in a (i) above. (12 marks)
- (b) Explain **two** safety precautions related to each of the following:
- (i) construction plant;
- (ii) personnel. (8 marks)

Preventive Overhaul

7. (a) Explain **three** sources of capital for financing construction plants: (6 marks)
- (b) Describe **four** factors to consider in the design of a site layout. (10 marks)
- (c) Explain **two** types of organizational structures in a construction firm. (4 marks)
8. (a) Explain **three** methods of filing documents. (6 marks)
- (b) State **three** advantages of each of the methods of communication:
- (i) verbal;
- (ii) written. (6 marks)
- (c) Explain **four** factors considered when buying office machines. (8 marks)

Purpose

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→ Saving
 → loan
 → credit facilities

preventive maintenance
 overhaul maintenance

→ efficiency → maximum
 → control
 → accurate
 → storage

→ avoid double
 → site activities made

dealing in handling material
 regular ~~check~~ checks should be